Vegetation Restoration Plan for Silver Creek and Adjacent Wetlands Located on the Simplot Property

S.20, T.2S., R21E. Near Carey, Blaine County, Idaho
EPA Docket No. CWA-10-2002-0139

"These prescribed final restoration and mitigation measures are intended to address concerns affecting Silver Creek and associated wetlands caused by the unauthorized fill activities. The outlined restoration applications specific to native riparian and wetland vegetation are designed to mitigate for the short-term effects and to achieve full restoration of the long-term impacts associated with the CWA Section 404 violation."

On April 30, 2004, the Board of Directors for the Shoshone Water District #37 and Trent Stumph, of Sawtooth Environmental Consulting, project manager for the restoration project met on the project site to review current conditions and to discuss restoration strategies. Restoration strategies and applications outlined within this restoration plan are designed to achieve successful completion of the remediation work required by the EPA to mitigate for the adverse wetland impacts that occurred on the site with regards to the unauthorized fill activities. The following document outlines current conditions and the proposed vegetation restoration applications.

Current Conditions

The project area is located approximately 6.6 miles southwest of the town of Carey, Blaine County, Idaho, within Section 20, Township 2 South, Range 21 East, (Figure 1). The project site is adjacent to Silver Creek and lies within the creek's floodplain; the complete project area is regarded as jurisdictional wetlands.

The impacted wetland area (restoration area) is positioned between the Silver Creek channel and adjacent wetland areas along the east and west sides of Silver Creek, (Figure 2). The identified restoration area is supported by periodic inundation from Silver Creek and near surface ground water conditions resulting in inundation and/or saturated soil conditions. Wetlands associated with the site have been classified as Palustrine Scrub Shrub Seasonally Flooded (PSSC) and Palustrine Emergent Seasonally Flooded (PEMC), (Cowardin Wetland Classification). Natural plant recruitment and colonization of wetland and riparian plant species is abundant throughout the identified restoration area. A good portion of the impacted area has already been colonized with various species including: native willow (Salix exigua), sedges (Carex spp.), rushes (Juncus spp.), reed canarygrass (Phalaris arundinacea), pondweed (Potamogeton spp.) and bulrush (Scirpus acutus) to name a few.

To date the following prescribed restoration activities have been completed:

1. Reestablish floodplain connection. All areas subject to unauthorized fill and dredge applications have been restored to original ground elevations that existed prior to unauthorized 404 activities.

2. Re-contour dike remnants. All fill materials placed on dike remnants to add height to the dike have been removed to original grounds elevations. Unconsolidated materials were placed in the excavated wetland areas.

3. Repair breach in dike (if necessary). The breached area within the dike, located near the highway will be repaired/filled if the breach is considered to have degrading impacts with regards to the functions and values of the adjacent wetland area.

4. Removal of debris piles. Debris piles, including willow material have been removed from the identified wetland areas.

Restoration Goal

Restore physical and biological characteristics to the impacted wetland area so that the pre-existing function and value of the wetland can be re-established and maintained.

Wetland Vegetation Restoration

The area to be addressed with vegetation applications is approximately 18,000 sq. ft. (0.41 acre), the majority of which is located on the west side of the Silver Creek channel. Vegetation applications will incorporate native herbaceous wetland plant species common to the project area and native to wetland areas of south-central Idaho. Vegetation plantings will be incorporated into the impacted areas in order to promote species diversity, enhance wildlife utilization and to deter undesirable vegetation colonization.

Strategies

1. Plant the appropriate type and number of native wetland and riparian plant species at densities sufficient to achieve 80 percent vegetation coverage by wetland plant species at the end of the fifth growing season.

   Application: Plant rooted wetland plant plugs (3 cubic inch), approximately 24 inches apart on center over all remaining bare ground within the restoration area. Impacted areas that have been colonized with desirable native wetland and riparian plant species due to natural recruitment will not be addressed.

2. Seed the complete restoration area with native wetland/riparian grass mix.

   Application: Broadcast an approved wetland/riparian grass mix over the complete restoration area (5 lbs pls / acre).

3. Manage restoration area to protect plantings and promote natural recruitment and colonization of desirable native wetland and riparian plant species.

   Application: Manage livestock grazing to ensure survival of restoration plantings for a period of five years or until required performance standards are met.

4. Monitor restoration applications to ensure mitigation objectives are met.

   Application: Prepare and submit monitoring report to the EPA annually after each growing season to document plant success and associated densities. Monitoring reports will be submitted for a five year period or until the project is determined a success.

Preliminary Species List –

Species proposed for wetland plant plug vegetation applications:

Scientific Name	Common Name	Wetland Indicator Status
Carex nebrascensis	Nebraska sedge	FACW
Carex rostrata	Beaked sedge	OBL
Carex simulate	Short-beaked sedge	FACW
Eleocharis palustris	Creeping spikerush	OBL
Juncus balticus	Baltic rush	FACW+

Species proposed for wetland plant plug vegetation applications:

Scientific Name	Common Name	Wetland Indicator Status
Carex nebrascensis	Nebraska sedge	FACW
Carex rostrata	Beaked sedge	OBL
Eleocharis palustris	Creeping spikerush	OBL
Juncus balticus	Baltic rush	FACW+

Implementation Plan

Vegetation applications will be completed with manual labor utilizing simple hand tools. All proposed work is to be completed in the restoration areas adjacent to the Silver Creek channel. Currently there are no surface water resources affecting the identified restoration areas. There are no foreseeable adverse impacts to water quality with regards to the proposed vegetation applications.

Schedule

Spring 2004 Inventory site to establish baseline for existing conditions and to determine actual area that needs to be addressed with restoration applications.

Generate restoration plan to address EPA prescribed restoration and mitigation measures.

Secure native wetland and riparian plant materials for vegetation applications.

Summer 2004 Implement restoration applications. Planting should occur when saturated soil conditions exist within the identified restoration areas (during high flow periods and/or near surface groundwater conditions exist). Perform planting applications during the month of June if adequate water supply is available.

Fall 2004 Monitor survival and associated densities of restoration plantings and general condition of the identified restoration areas.

Submit report to EPA with monitoring data and photos.

Fall 2005-08 Submit report to EPA with monitoring data and photos.

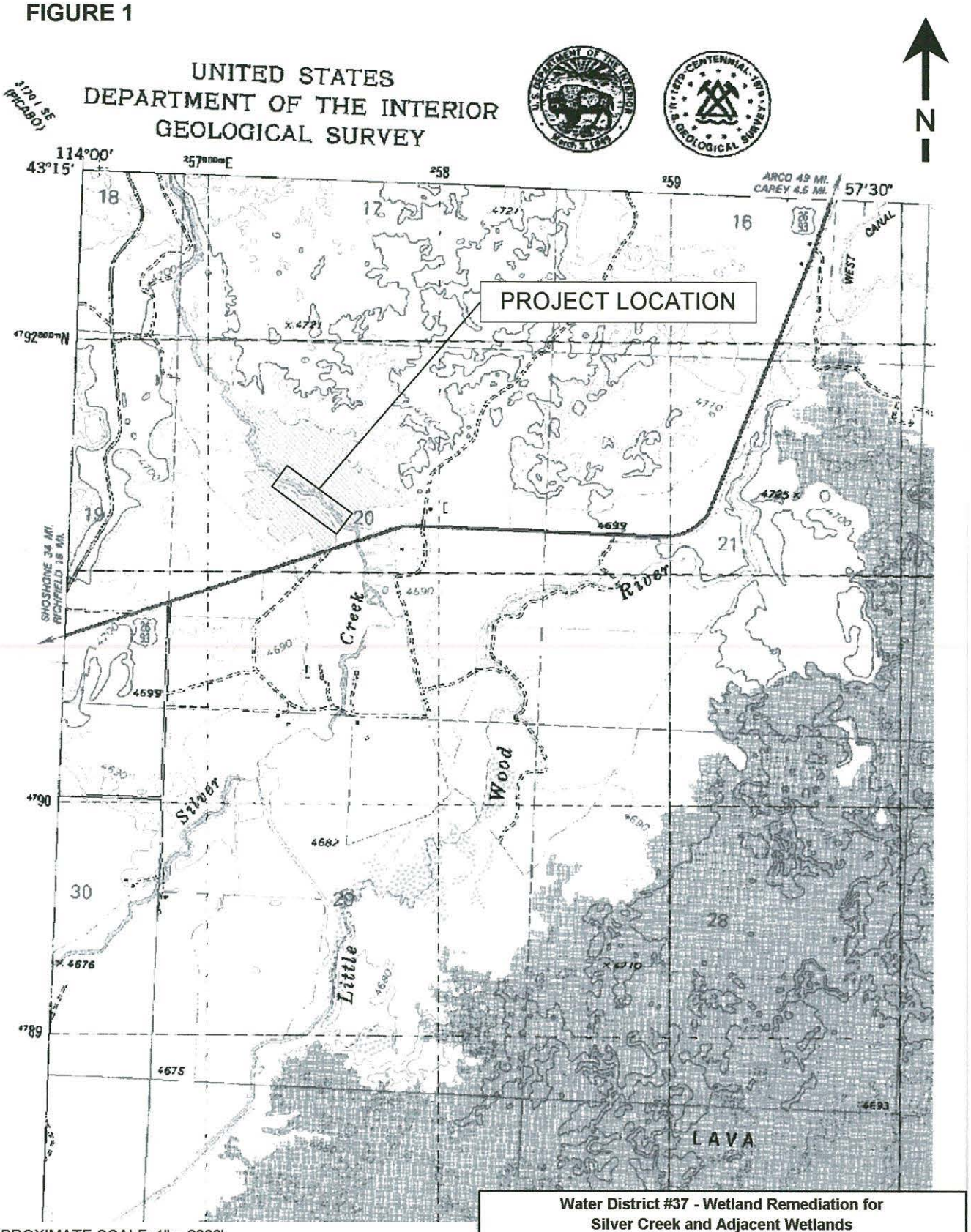
Maintenance –

The restored wetlands will be inventoried at the end of the first growing period (Fall 2004). Wetland vegetation planted shall be deemed successful if, over 80% of the planted vegetation survives and shows signs of new growth. Should the vegetation not meet the survival criteria, it shall be replanted to the original density prescribed in the plan "1 plant approximately 24 inches apart on center".

Subsequent inventories will occur annually at the end of each growing season (Fall 2005 - 08). The same success criteria will apply, as will the contingency plan. If, after subsequent replanting the plant (s) fail to survive and grow, a new species shall be selected for planting.

A monitoring report including photographic documentation will be submitted annually until performance standards have been achieved and the project has been determined a success.

FIGURE 1



APPROXIMATE SCALE: 1" = 2000'

Map from: USGS Pagari Well, Idaho Quad.

Water District #37 - Wetland Remediation for Silver Creek and Adjacent Wetlands

VICINITY MAP

OWNER: SIMPLOT

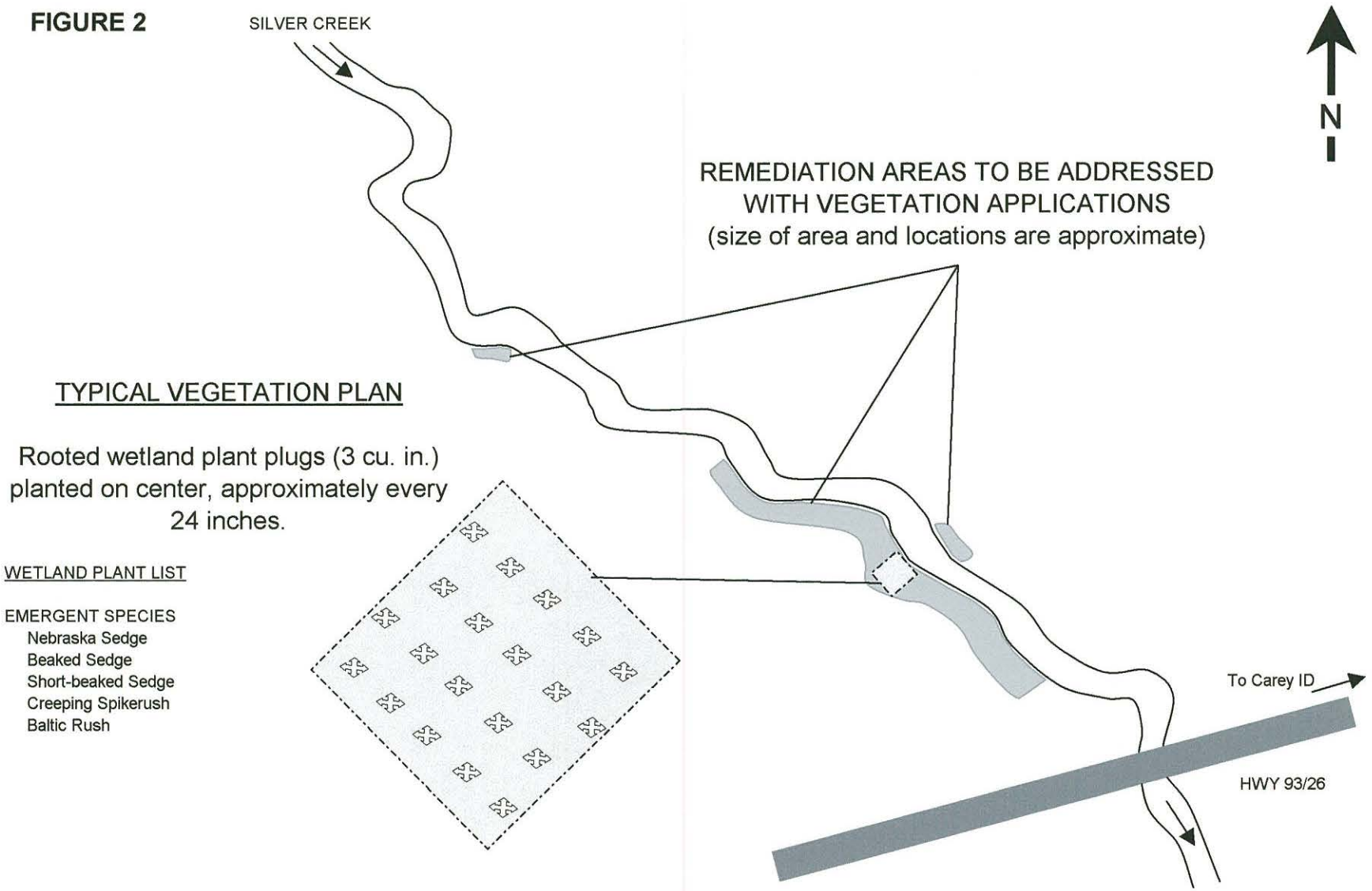
LOCATION: SECTION 20, T. 2 S., R. 21 E., B.M., BLAINE COUNTY IDAHO

Date: MAY 24, 2004

PAGE 5

SAWTOOTH ENVIRONMENTAL CONSULTING, LLC

FIGURE 2



TYPICAL VEGETATION PLAN

Rooted wetland plant plugs (3 cu. in.) planted on center, approximately every 24 inches.

WETLAND PLANT LIST

EMERGENT SPECIES
- Nebraska Sedge
- Beaked Sedge
- Short-beaked Sedge
- Creeping Spikerush
- Baltic Rush

WETLAND REMEDIATION for SILVER CREEK and ADJACENT WETLANDS 2004 - VEGETATION PLAN

Restore native vegetation charateristics to the impacted wetland areas so that the pre-existing function and value of the wetland can be re-established and maintained.

Restore wetland vegetation by planting native emergent wetland plant species within all the impacted areas, covering approximately 0.41 acre (18,000 sq. ft.)

- Plant 2500 native emergent wetland plant plugs, two feet on center in the identified impacted areas.

Water District #37 - Wetland Remediation for Silver Creek and Adjacent Wetlands **SITE PLAN and DETAILS**	
OWNER: SIMPLOT LOCATION: SECTION 20, T. 2 S., R. 21 E., B.M., BLAINE COUNTY IDAHO	Date: MAY 24, 2004 PAGE 6
SAWTOOTH ENVIRONMENTAL CONSULTING, LLC	